For the present we are content merely to point out the very wide distinctions existing between the genera *Chauna* and *Palamedea*. Those who are best acquainted with the anatomy of birds will realize most readily how considerable these distinctions are. We hope on a subsequent occasion, when we have had the opportunity of examining again and more minutely some points in the structure of *Chauna*, to deal with the systematic position of the Palamedeidæ. The fact that so great differences obtain between the genera is confirmatory of the generally received opinion that this form is one of great antiquity.

8. On a Collection of Lepidoptera from British East Africa, made by Dr. J. W. Gregory between the Months of March and August 1893. By Arthur G. Butler, Ph.D., F.L.S., F.Z.S., &c., Assistant-Keeper Zoological Department, British Museum (Nat. Hist.).

[Received June 8, 1894.]

(Plates XXXVI. & XXXVII.)

The present collection is rich in species and in number of specimens, though, unfortunately, many of the latter are not in first-rate condition: indeed most of the small moths are unidentifiable. Nevertheless the collection contains several novelties, a fair series of specimens in good preservation, and is particularly interesting as including a considerable number of grades between species which hitherto have been easy to distinguish, but are now clearly shown to be, at most, localized dimorphic developments from one widely-distributed species.

Of the species which it has been possible to name, or, at any rate, to assign to their genera, there are no less than 215, of which 10 are described as new to science. Of the remainder several are new to the Museum, whilst others have previously only been represented by single examples.

Of Butterflies previously received from Somali-land the collection contains the following:—

1. Limnas chrysippus (vars. *dorippus* and *klugi*).
2. Ypthima asterope.
3. Neocœnyra duplex.
4. Junonia (Precis) limnoria.
5. Junonia cebrene.
6. Byblia ilithyia (*Hypanis ilithyia* of my Somali paper).
7. Hamanumida dædalus.
8. Polyommatus bæticus.
9. Catochrysops osiris.
10. Terias zoe.
11. Teracolus helvolus (separated subsequently to the publication of my paper on Somali Lepidoptera).

12. Teracolus protomedia.
13. Teracolus nouna.
14. Teracolus thruppi.
15. Belenois lordaca=var. of *B. mesentina*.
16. Sarangesa djælælæ.

Of the above-named species, *Neocœnyra duplex*, *Teracolus helvolus*, and *Teracolus thruppi* were only known from Somali-land; but the others are more or less widely distributed. The species obtained from Kilima-njaro are represented in about an equal degree, as also those from Nyassa-land.

RHOPALOCERA.

1. Amauris dominicanus.

Amauris dominicanus, Trimen, Trans. Ent. Soc. 1879, p. 323.

Steppes of Thika-Shika, among patches of acacia-scrub; Kibwezi and Ndoli.

Some of the specimens obtained have the black outer border of the secondaries considerably narrower than in the typical form.

2. Limnas chrysippus.

Papilio chrysippus, Linnæus, Mus. Lud. Ulr. p. 263 (1764).

♂ ♀, Steppes N.W. of Longari.

The typical form of this species appears to have been rare.

2 *a*. Limnas klugi.

Limnas klugii, Butler, P. Z. S. 1885, p. 758. n. 2.

Thiriati, 12th June; Kithu-Uri, Maranga, 13th June; Ngatana, December; Barra, near Merifano; Ndara; Guaso, Narok; Ukikuigu, Thika-Shika, 16th July; Ndangi River; Kibwezi.

This seems to have been the prevalent form of the species.

2 *b*. Limnas dorippus.

Euplœa dorippus, Klug, Symb. Phys. pl. 48. figs. 1–4.

♂, Ngatana in January; ♀, Alng'aria.

One male and two females were obtained, all of them less varied with white on the secondaries than in the typical form of this race.

3. Tirumala petiverana.

Danais limniace, var. *petiverana*, Doubleday, Gen. Diurn. Lep. p. 93. n. 37, pl. 12. fig. 1 (1847).

Steppes of Thika-Sika; Tana, 16th July.

Only three examples were obtained, west of the Lower Falls.

4. Melanitis solandra.

Papilio solandra, Fabricius, Syst. Ent. p. 500 (1775).

♂ ♀, Ngatana, 29th January, 1893.

5. Mycalesis (Monotrichtis) eusirus.

Mycalesis eusirus, Hopffer, Ber. Verh. Ak. Berl. 1855, p. 641. n. 13.

Ngatana, December and January; shores of Lake Dumi, 13th February; Njempo; steppes of Thika-Shika on grassy plateau west of the Lower Falls, 16th July.

6. Enotesia, sp.

One poor example of a species near to *E. ankoma* (*Mycalesis ankoma*, Mabille); the primaries, however, are a little less angular than in that species, and the outer edge of the dark central belt is zigzag throughout.

Ndoro; steppes at base of Kenya, 7000 feet.

Neocœnyra, Butl.

The present collection proves that this genus must be much more extensive than I had supposed. In the first place, there are sexes of my *N. duplex* agreeing very closely in pattern, the female being entirely without the red markings of my supposed female from Somali, thus proving that the latter is a distinct species (for which, therefore, I propose the name of *N. rufilineata*). Secondly, there is a species allied to *N. duplex* and *N. ypthimoides*, but nearer to the former.

Neocœnyra, at first sight, would appear to be scarcely distinct from *Strabena*, Mab., if we were to accept that author's decision as regards the type of his genus. Although in 1877 M. Mabille had already described a single species under the generic name *Strabena* (*S. smithii*, Pet. Nouv. p. 157), he stated in M. Grandidier's 'Hist. de Madagascar' that *Satyrus tamatavæ*, Boisd., was the type of his new genus.

If this loose treatment of the types of genera is permitted, it will necessitate alteration of the names of scores of well-known groups, the types of which have been figured or referred to by both Hübner and Felder, without any definite statement that the species thus indicated are the types of their genera.

The only safeguard is strictly to follow the method adopted by Scudder, accepting the author's first mention of his genus, as then used, and ignoring all his subsequent decisions: the first species recorded under a new generic name, if unaccompanied by other species, or any statement as to the type of the said genus, thus becomes, and must for ever after remain, the typical species.

The genus *Strabena*, as represented in the 'Histoire de Madagascar,' contained heterogeneous material, and the so-called type differs in no structural character from one of the species placed by the same author under *Pseudonympha*: thus M. Mabille says that the latter genus is characterized by its long antennæ, the club of which is distinct, oboval, and laterally compressed; but his *P. goudotii* has the club cylindrical and with a longitudinal groove below, as in *S. rakoto*, *vinsonii*, *ibitina*, *tamatavæ*, &c.; it also has

the median vein somewhat swollen at the base, though less so than in *Ypthima*, of which genus the whole of these Madagascar forms might well be considered a section, the angulated-winged species being alone kept distinct under the generic name of *Strabena*[1].

The absence of any swelling at the base of the median vein in *Neocœnyra* at once separates it from *Ypthima*, and, as a matter of course, from Mabille's second version of *Strabena*.

7. Neocœnyra gregorii, sp. n. (Plate XXXVI. fig. 2.)

Nearest to *N. duplex*: considerably larger. Olivaceous brown, slightly rufescent in certain lights on the basal half, which is always slightly darker; a well-defined dark brown submarginal line, somewhat sinuated on the secondaries, particularly towards the apex; a second more slender line close to outer margin: primaries with a large, rounded, subapical, black bipupillated ocellus; the pupils white, edged with blue or lavender scales; iris tawny orange, with external dark brown zone: secondaries with three or four similarly coloured, but smaller and unipupillated ocelli as follows:—one subcostal towards apex, very small in the male but large in the female, and three in an oblique series from third median branch to near anal angle, the third smaller than the others and sometimes wanting in male examples. Wings below slightly more olivaceous than above, the submarginal lines sienna-red externally, the inner one of the secondaries zigzag towards apex; two other irregular lines, dark brown in the male but red in the female, crossing the wings, angulated on the secondaries; base of costa and discoidal cell red in both sexes; ocelli nearly as above, but the subanal ocellus of the secondaries always present and usually double or geminate, the opposite wings sometimes showing two small ocelli near together or one geminate ocellus respectively. Body blackish, with a red spot on the patagia. Expanse of wings, ♂ 43 millim., ♀ 46 millim.

Karianduri, ascent of Kilima Meza, Elmeteila Basin, Nawashi to Baringo Valley, Kariandur, 6100 feet, wooded ravines and cliffs to the east and salt marshes to the west; Alng'aria; Thegu and steppes north of Thegu; Ndora steppes at base of Kenya, 7000 ft.; Rangatan, Ndari.

8. Neocœnyra duplex. (Plate XXXVI. fig. 1.)

♂. *Neocœnyra duplex*, Butler, P. Z. S. 1885, p. 758. n. 4.

The true female of this species has the tawny area on the primaries much larger than in the male and continued downwards to the first median branch, enclosing a second small and unipupillate ocellus on the first median interspace; the secondaries show a sinuous dark brown line beyond the cell on the under surface. Expanse of wings 36 millim.

Ngomeni to Kinani.

[1] Apart from colour characters, I fail to see any good reason for distinguishing "*Strabena*" *tamatavæ* and allies, even as a Section, from true *Ypthima*, the only structural distinction being one of degree.

Physcænura, Wllgr.

In my last paper (on Mr. Johnston's collections) I failed to recognize this genus as the *Periplysia* of Gerstäcker, and consequently, in going through the Records, I overlooked Mr. Godman's *Physcænura pione* and renamed it as a new *Periplysia*.

9. Physcænura leda.

Periplysia leda, Gerstäcker, Arch. für Naturg. 1871, i. p. 358; Van der Decken's Reisen, iii. 2, p. 371, pl. 15. figs. 3, 3 *a* (1873).

Ngatana.

10. Ypthima asterope.

Hipparchia asterope, Klug, Symb. Phys. pl. 29. figs. 11–14 (1832).

Ngomeni to Keriani.

One rather poor example was obtained.

11. Eurytela dryope.

Papilio dryope, Cramer, Pap. Exot. i. pl. lxxviii. E, F (1779).

Ngatana, 29th January, 1893; Kibwezi and Fuladoya.

12. Eurytela ophione.

Papilio ophione, Cramer, Pap. Exot. ii. pl. cxiv. E, F (1779).

Ngatana, December or January.

13. Byblia ilithyia.

Papilio ilithyia, Drury, Ill. Exot. Ent. ii. pl. 17. figs. 1, 2 (1773).

Ngatana, 29th and 30th January, 1893; Golbanti; Ndara in the afternoon; Kinani; Mtoto wa Ande; steppes N.W. of Longari; steppes of Kiroruma.

14. Byblia cora.

Hypanis cora, Feisthamel, Ann. Soc. Ent. France, 1850, p. 249.

Ndara and Thagana, in woods beside and park-land between Ukikuya.

15. Byblia acheloia.

Hypanis acheloia, Wallengren, Lep. Rhop. Caffr. p. 29 (1857).

Urtu in garden; Ngatana; Mtoto wa Ande.

16. Charaxes guderiana.

♂. *Nymphalis guderiana*, Dewitz, Nova Acta Akad. Naturf. Halle, 1879, p. 200, pl. 2. fig. 18.

♀. *Charaxes guderiana*, Butler, P. Z. S. 1893, p. 648. n. 18; Trimen, P. Z. S. 1894, pl. v. fig. 8.

♂, Fuladoya.

17. Charaxes candiope.

Nymphalis candiope, Godart, Enc. Méth. ix. p. 352. n. 10 (1823).

Summit of Mt. Höhnel, 16,000 feet.

18. Palla varanes.

Papilio varanes, Cramer, Pap. Exot. ii. pl. clx. D, E (1779).

No record of exact locality on the specimen: probably Sabaki Valley.

Dr. Gregory informs me that the bulk of the specimens obtained in the Sabaki Valley were not labelled; thus nearly all unlabelled examples would be from that locality.

19. Hypolimnas misippus.

Papilio misippus, Linneus, Mus. Lud. Ulr. p. 264 (1764).

♂ ♀, Ngatana, December and January.

19 *a*. Hypolimnas inaria.

Papilio inaria, Cramer, Pap. Exot. i. pl. ccxiv. A, B (1779).

♂, Lamu; ♀, Witu; Ngatana, 28th December, 1892; Kinani; Njempo; Athi, plains near Chjanjavi.

20. Euralia deceptor.

Diadema deceptor, Trimen, Trans. Ent. Soc. 1873, p. 105.

Euralia deceptor, Trimen, South Afr. Butt. i. p. 286. n. 93, pl. vi. fig. 3.

♀, Sabaki Valley.

21. Junonia ethyra (or a nearly allied new species).

Salamis ethyra, Feisthamel, Ann. Soc. Ent. Fr. 1850, p. 250.

Alng'aria.

22. Junonia natalica.

Precis natalica, Felder, Wien. ent. Monatschr. iv. p. 106. n. 65 (1860).

Sandy steppes of the Kiroruma, Tana; Thika-Shika, west of the Lower Falls.

23. Junonia limnoria.

Vanessa limnoria, Klug, Symb. Phys. pl. 48. figs. 6, 7 (1845).

Kibwezi.

24. Junonia simia.

Precis simia, Wallengren, Kongl. Svenska Vetensk.-Akad. Handl. 1857, p. 26. n. 2; Trimen, South Afr. Butt. i. p. 227 (1887); P. Z. S. 1894, p. 33, pl. iv. fig. 5.

Junonia micromera, Butler, Ann. & Mag. Nat. Hist. ser. 4, vol. xviii. p. 482 (1876).

Kinani; Mtoto wa Ande; Njempo, shores of Lake Baringo, taken at night.

Evidently a common though somewhat local species. Mr. Trimen says that he recognized it by the help of a coloured drawing of the type. I have only recently recognized it through Mr. Trimen's plate, a coloured proof of which was submitted to me to pass for printing. In the description by Trimen (South Afr. Butt.) this species is clearly compared with my *J. calescens*, which I find that Staudinger has superseded in his letterpress, though not on his plate, by calling it *Precis octavia*, var. *natalensis*. That it is not a variety (as Staudinger imagined from the fact that he had, apparently, only one example from Natal) is certain; for it occurs in localities where the allied *Junonia octavia* is not found, and which it evidently replaces, as *J. simia* does in the present collection. Whether the names *natalica* and *natalensis* should both stand may be questioned.

25. Junonia terea, var.

Papilio terea, Drury, Ill. Exot. Ent. ii. pl. 18. figs. 3, 4 (1773).

♂, Gopo lal Mavari, Laitsipia; ♀, Alng'aria.

A very dark suffused pair with orange band almost as narrow as in *J. elgiva*, which it tends to link to *J. terea*.

26. Junonia cuama.

Junonia cuama, Hewitson, Exot. Butt. iii. *Jun.* pl. 1. figs. 4, 5 (1864).

Kinani, afternoon; Mtoto wa Ande; steppes of Thika-Shika.

27. Junonia cloantha.

Papilio cloantha, Cramer, Pap. Exot. iv. pl. cccxxxviii. A, B (1782).

Guaso Laschau, Guaso Nyiro.

28. Junonia sesamus.

Precis sesamus, Trimen, South Afr. Butt. i. p. 231, pl. iv. fig. 3 (1887).

Maka.

29. Junonia boöpis.

Junonia boöpis, Trimen, Trans. Ent. Soc. London, 1879, p. 331.

Witu; Njempo.

30. Junonia clelia.

Papilio clelia, Cramer, Pap. Exot. i. pl. xxi. E, F (1779).

Witu; Ngatana, December and January; Njempo; Guaso Laschau; Thagana woods beside Ukikuya; steppes between Athi and Thika; Sabaki Valley at Tanganyika.

In some of Dr. Gregory's examples the blue patch is unusually

large on the secondaries, exhibiting the first step in the direction of *J. boöpis*: it varies from cobalt to lilac in tint.

31. Junonia cebrene.

Junonia cebrene, Trimen, Trans. Ent. Soc. London, 1870, p. 353.

Kinani; platform on Kikuyu escarpment, Kedong, Naiva; shores of Lake Baringo; Njempo; Guaso Narok; Guaso Laschau; steppes N.W. of Longari; Thagana; steppes of Thika-Shika; steppes between Athi and Thika; Athi plains, Chjanjavi; Maka; Ndoli; Sabaki Valley at Tanganyika and near Makongeni.

As regards the form of the tawny patches and the size, shape, and colouring of the blue or violet spot on the secondaries the specimens vary not a little; it therefore seems doubtful whether the Malagasy form, *J. paris*, will prove to be specifically distinct.

32. Pyrameis abyssinica.

Pyrameis abyssinica, Felder, Reise der Nov., Lep. iii. p. 397. n. 589 (1867).

No exact locality on the specimen; probably Sabaki Valley.

This interesting little species is quite intermediate between *P. atalanta* and *P. dejeanii*; but, as Felder says, belongs to the *P. atalanta*-group. In colouring it more nearly resembles *Eurema schœneia*, Trimen, but has a short ochreous bar beyond the cell of the primaries representing the white bar in *P. atalanta*.

Trimen observes that I evidently included *E. schœneia* under my *Hypanartia commixta* (in which he is quite correct); but whether the date printed with Oberthür's paper was that of its actual publication is, I think, open to question.

33. Pyrameis cardui.

Papilio cardui, Linnæus, Faun. Suec. p. 276. n. 1054 (1761).

Guaso Laschau; Thagana; Kenya, camp below the old ice-fall; steppes between Athi and Thika; Ndangi River.

34. Protogoniomorpha aglatonice.

Vanessa aglatonice, Godart, Enc. Méth. ix. p. 299. n. 8 (1819); ♂, Lucas, Lep. Exot. pl. 57. fig. 2 (1835).

Var. ♂. *Salamis definita*, Butler, Ann. & Mag. Nat. Hist. ser. 5, vol. iv. p. 230 (1879).

♀. *Protogoniomorpha definita*, Butler, P. Z. S. 1893, p. 653.

♂ ♀. *Salamis nebulosa*, Trimen, Trans. Ent. Soc. Lond. 1881, p. 441; South Afr. Butt. i. p. 246. n. 79 (1887).

♀ ♀. Sabaki Valley.

Three examples exactly corresponding with typical females of the three supposed species; thus distinctly proving that they are mere sports of one variable form, as I previously suggested.

35. Protogoniomorpha anacardii.

Papilio anacardii, Linnæus, Mus. Lud. Ulr. p. 236 (1764).

Lanjoro, south of Guaso Thegu.

36. Euphædra violacea.

Euryphene violacea, Butler, P. Z. S. 1888, p. 91.

No exact localities on the pair obtained; probably from the Sabaki Valley.

An example from Zanzibar in the series of *E. neophron* recently presented to the Museum by Messrs. Salvin and Godman shows a decided approach to the colouring of *E. violacea*, but has the wing-form of typical *E. neophron*. The latter varies remarkably in colouring, examples from Lake Nyasa being bright green above, those from Delagoa Bay bluish green or greenish blue, those from Zanzibar having a more or less pronounced violaceous suffusion, usually confined to the external area. None, however, have the produced primaries or uniform violaceous colouring of my species, though it is possible that more transitional forms may hereafter be obtained.

37. Hamanumida dædalus.

Papilio dædalus, Fabricius, Syst. Ent. p. 482. n. 174 (1775).

Golbanti; steppes of Thika-Shika; Ndoli; Ndangi River.

38. Godartia wakefieldii.

Godartia wakefieldii, Ward, Ent. Month. Mag. x. p. 152; Afric. Butt. pl. vi. fig. 3 (1873).

No exact localities on specimens, which were therefore probably obtained in the Sabaki Valley.

39. Neptis agatha.

Papilio agatha, Cramer, Pap. Exot. iv. pl. cccxxvii. A, B (1782).

Ngatana; Guaso Laschau; Thiriati; steppes of Thika-Shika.

40. Atella columbina.

Papilio columbina, Cramer, Pap. Exot. iii. pl. ccxxxviii. A, B; iv. pl. cccxxxvii. D, E (1782).

No exact locality on the specimens; probably Sabaki Valley.

41. Acræa cabira.

Acræa cabira, Hopffer, Ber. Verh. Akad. Berlin. 1855, p. 640. n. 7; Peters, Reise nach Mossambique, p. 378, pl. 23. figs. 14, 15 (1862).

Thiriati (shrub-covered plateau, with deep gorges) in Tana river-basin.

42. Acræa ventura.

Acræa ventura, Hewitson, Ent. Month. Mag. xiv. p. 51 (1877); Butler, P. Z. S. 1893, p. 655. n. 61.

Rangatan, Ndari, Laitsipia.

43. Acræa planesium.

Acræa planesium, Oberthür, Études d'Entom. 17th livr. p. 24, pl. 1. fig. 11 (1893).

Thiriati; Machakos; Kavaluki Valley; Maka.

Apparently not a rare species.

44. Acræa perrupta.

Telchinia perrupta, Butler, Ann. & Mag. Nat. Hist. ser. 5, vol. xii. p. 102. n. 4 (1883).

Golbanti; Mbololo near summit, 5600 ft.; shores of Lake Baringo, S.W. corner; Njempo; Gopo lal Mavari; Guaso Laschau; Thiriati.

45. Acræa lycia.

Papilio lycia, Fabricius, Syst. Ent. p. 464. n. 94 (1775).

Ngatana; Ndara; Njempo; shores of Lake Baringo.

45 *a*. Acræa cæcilia.

Papilio cæcilia, Fabricius, Spec. Ins. ii. p. 34. n. 142 (1781).

Ngatana.

One example of the variety noted P. Z. S. 1888, p. 66. The true *A. cæcilia* is probably a seasonal (certainly a dimorphic) form of *A. lycia*: it only differs from the typical phase in its tawny coloration.

46. Acræa doubledayi.

Acræa doubledayi, Guérin, Lefebvre's Voy. en Abyss. vi. p. 378 (1847).

No exact locality recorded; probably Sabaki Valley.

47. Acræa pudorina.

♂. *Acræa pudorina*, Staudinger, Exot. Schmett. p. 84, pl. 33 (1888).

Acræa acrita, var., Trimen, P. Z. S. 1894, p. 28, pl. iv. fig. 4.

Ndara, in the afternoon; steppes of Thika-Shika and between Athi and Thika; Athi plains near Chjanjavi; Bondoni and Kapte plains; Kibwezi.

Described, according to Staudinger, from a single fresh male; this does not appear from the illustration, for fresh males have the wings far more rosy above, and, below, the apical area of the primaries and disc of the secondaries are cream-coloured, with internervular reddish tawny streaks; after they have flown for a time the cream-colouring seems to get worn (or perhaps darkened) and the streaking is thereby lost; most males show three black spots in a slightly angular oblique series across the centre of primaries, but in some examples the two lower spots are wanting (Staudinger's figure shows a trace of the lowest, but not the middle spot). The female above is of a smoky vinous tint, blackish towards the base, and quite black at base of cell in secondaries; the apical area of primaries smoky fulvous, the costal third and the outer margin more broadly black than in any of the male examples; the external border of the secondaries black, with faint brownish indications of the submarginal spots. Expanse of wings 56 millim.

There is not the slightest question that this is a local represen-

tative of *A. acrita*, from which it only differs in the absence of the broad apical black patch on the primaries; in well-marked examples all the spots (on the absence of which Dr. Staudinger relies) are well defined; one specimen even shows an additional spot on the subcostal area, nearer to apex.

48. Acræa natalica.

Acræa natalica, Boisduval, Voy. de Deleg. p. 590. n. 57 (1847).

Ngatana, December and January.

49. Acræa menippe.

Papilio menippe, Drury, Ill. Exot. Ent. iii. pl. 13. figs. 3, 4 (1782).

One worn female from Ngatana.

50. Acræa anemosa.

Acræa anemosa, Hewitson, Exot. Butt. iii., *Acr.* pl. 3. figs. 14, 15 (1865).

Two good specimens without labels of locality, but probably from the Sabaki Valley.

51. Acræa insignis.

Acræa insignis, Distant, P. Z. S. 1880, p. 184, pl. ix. fig. 4.

No exact locality; probably Sabaki Valley.

52. Planema montana.

♂. *Planema montana*, Butler, P. Z. S. 1888, p. 91.

♀. Pattern of male, decidedly larger, the primaries to outer border of secondaries fuliginous; the band of primaries and central area of secondaries white, interrupted by blackish veins; base of secondaries suffused with dull tawny buff, the black spots of the under surface showing through. Expanse of wings 82 millim.

♀, Kibwezi.

We have received both sexes of this species from Kilimanjaro.

53. Hyreus æquatorialis.

Lycæna æquatorialis, E. M. Sharpe, P. Z. S. 1891, p. 637, pl. xlviii. fig. 5.

♂ ♀, Summit of Mount Höhnel, 16,000 feet; Kenya and camp below the old ice-fall, 10,500 feet.

Strictly speaking this species and *H. webbianus* hardly belong to *Hyreus*, as their hind wings are not tailed.

The figure is taken from a somewhat abnormal specimen; most examples have the dark discal band toothed in the centre, the prominence emitted from the centre of the band and sometimes entirely dividing the white submarginal band; this is the case with Dr. Gregory's pair of the species, and with several unset specimens shown to me by Miss Sharpe.

54. Zizera knysna.

Lycæna knysna, Trimen, Trans. Ent. Soc. Lond. 3rd ser. vol. i. p. 282 (1862).

♂ ♀, Mtoto wa Ande; shores of Lake Baringo; Njempo.

55. Zizera gaika.

Lycæna gaika, Trimen, Trans. Ent. Soc. Lond. 3rd ser. vol. i. p. 403 (1862).

♂ ♀, Njempo.

56. Lycænesthes amarah.

Polyommatus amarah, Guérin, Lefebvre's Voy. en Abyss. p. 384, pl. 11. figs. 5, 6.

♂ ♀, Larabwal, Laitsipia.

57. Lycænesthes kersteni.

Lycæna kersteni, Gerstäcker, Archiv für Naturg. 1871, p. 359. n. 27; Van der Decken's Lep. Ost-Sibiriens, p. 373. n. 27, pl. xv. fig. 5 (1873).

One fragmentary male, from Mtoto wa Ande.

I am at a loss to understand why Mr. Trimen regarded this species as synonymous with *L. larydas*; the two forms appear to me as distinct as any of the species in the genus and only show a resemblance to each other on the upper surface; but even there the shade of deep blue in the males differs and the form is strikingly different, the front wings of *L. kersteni* being elongate-triangular, those of *L. larydas* comparatively short in the costa and consequently with the outer margin almost straight instead of very oblique. Taking the entire outline of *L. larydas* it roughly represents a semicircle, whilst that of *L. kersteni* more nearly approaches a triangle with truncated apex.

58. Catochrysops osiris.

Lycæna osiris, Hopffer, Ber. Verh. Ak. Berlin, 1885, p. 642. n. 21; Peters's Reise nach Mossambique, v. p. 409, pl. 26. figs. 11, 12 (1862).

No exact locality given; probably Sabaki Valley.

59. Polyommatus bæticus.

Papilio bæticus, Linnæus, Syst. Nat. i. 2, p. 789. n. 226 (1767).

♂ ♀, Ngatana *in coitu*; Kavaluki Valley, Ukamba.

60. Castalius gregorii, sp. n. (Plate XXXVI. fig. 3.)

♂. Allied to *C. calice* and *C. cretosus*; above nearest to the latter, the white area of the primaries still wider, the submarginal spot crossed by the radials larger, but no white spots on the outer border below it: secondaries above with the basal third greyish, traversed by nearly straight blackish bars, partly visible through the wing, and further obscured by long greyish hair; outer border

rather narrow and quite regular; only the first of the disco-submarginal series of spots being present, close to apex; white submarginal lunules small and inconspicuous. Below, the primaries are almost the same as in *C. calice*, but the black spots on the submarginal white band are smaller, the lowest being absent; the white areas generally are also broader: the secondaries below differ from those of *C. calice* in that the two irregular series of black spots crossing the basal half are confluent, forming black bands, the discal series of spots being only represented by a small subapical dot; the submarginal partly blue-edged black spots smaller and reduced to five in number. Expanse of wings 31 millim.

Bondoni and Kapte Plains.

Only one example was obtained, but in tolerably good condition.

61. Azanus occidentalis.

Azanus occidentalis, Butler, P. Z. S. 1887, p. 571. n. 32.

♀, Gopo lal Mavari; ♂, Thagana, woods beside Ukikuya.

62. Plebeius trochilus.

Lycæna trochilus, Freyer, Neuere Beitr. v. pl. 440. fig. 1 (1844).

Njempo.

63. Plebeius, sp.?

One much-worn and broken female example of a species which I have been unable to identify.

Rangatan, Ndari.

64. Tatura philippus.

Hesperia philippus, Fabricius, Ent. Syst. iii. 1, p. 283. n. 87 (1793).

No exact locality recorded.

65. Virachola anta.

Lycæna anta, Trimen, Trans. Ent. Soc. ser. 3, vol. i. p. 402 (1862).

Sabaki Valley.

66. Stugeta bowkeri.

Iolaus bowkeri, Trimen, Rhop. Afr. Austr. p. 225. n. 130, pl. 4. fig. 4 (1866).

S.W. corner of Lake Baringo.

This is quite distinct from *S. marmorea*, from the White Nile; that species shows no trace of the conspicuous blue colouring of *S. bowkeri*.

67. Spindasis nyassæ. (Plate XXXVI. fig. 4.)

Aphnæus nyassæ, Butler, Ent. Mo. Mag. xx. p. 250 (1884).

Two females, without exact locality.

68. Axiocerses perion.

Papilio perion, Cramer, Pap. Exot. iv. pl. cccl xxix. B, C (1782).

♂, Steppes N.W. of Longari, Laitsipia.

69. Cigaritis abbottii.

Chrysophanus abbottii, Holland, Entomologist, xxv. (Suppl.) p. 90 (1892).

Guaso.

70. Mylothris agathina.

Papilio agathina, Cramer, Pap. Exot. iii. pl. ccxxxvii. D, E (1782).

Mbololo near summit, 5600 feet; Kibwezi.

71. Mylothris rüppellii.

Pieris rüppellii, Koch, Indo-Austr. Lep. Fauna, p. 88 (1865).

♀, Alng'aria, Laitsipia.

72. Nychitona alcesta.

Papilio alcesta, Cramer, Pap. Exot. iv. pl. cccl xxix. A (1782).

Ngatana, December and January.

73. Colias edusa, var. electra.

Papilio electra, Linnæus, Syst. Nat. i. 2, p. 764. n. 101 (1767).

Steppes N.W. of Longari; Thagana, in woods; Thegu, in park-land; Mt. Kenya, below the old ice-fall, 10,500 feet; Karati, Konu, Ukikuya, beside swamp; Thiriati, Konu, on shrub-covered plateau.

In British East Africa this species is very variable, both in size and depth of colour: one of the males from the first-mentioned locality has all the appearance of typical *C. edusa* (nor do I believe that it possesses a character to distinguish it therefrom), and none of the distinctive points indicated in Trimen's 'South African Butterflies' avail to separate it, seeing that it does not possess them. The "inward nervular dentations of the hind-marginal border" are very variable in both types; indeed a male in the Museum from Malta shows stronger dentations than those normally exhibited in *C. electra*, whilst in the specimen above mentioned they are hardly so well marked as in the majority of typical *C. edusa*, and a specimen in the Museum from Kilimanjaro, though dark in colour and smaller than usual, shows no inward dentation of the border.

74. Terias brigitta.

Papilio brigitta, Cramer, Pap. Exot. iv. pl. cccxxxi. B, C (1782).

Steppes N. of Thegu.

75. Terias zoë.

Terias zoë, Hopffer, Ber. Verh. Ak. Berl. 1855, p. 640. n. 5; Peters, Reise nach Mossamb., Zool. pl. 23. figs. 10, 11 (1862).

Ngomeni to Kinani; Mtoto wa Ande; Miviruni, Baringo Valley, Mguki; shores of Lake Baringo; steppes of Thika-Shika; Athi plains near Chjanjavi; Machakos; Bondoni and Kapte plains; Ndangi River.

76. Terias regularis.

Terias regularis, Butler, Ann. & Mag. Nat. Hist. ser. 4, vol. xviii. p. 486 (1876).

Mbololo, near summit, 5600 feet.

77. Terias desjardinsii.

Xanthidia desjardinsii, Boisduval, Faune Ent. de Madag. p. 22, pl. 2. fig. 6 (1833).

♂, Mbololo, near summit.

One rather ragged, but very singular, male specimen, in which the outer border of the primaries is formed as in *T. formosa*, Hübn., and the black edging of the costal margin is wanting.

78. Terias boisduvaliana.

Terias boisduvaliana, Mabille, Hist. Nat. de Madag. i. pl. 32. figs. 4–7.

Ngatana in wood, 30th January, 1893; Njempo; Larabwal, Laitsipia; Ndoro, steppes at base of Kenya, 7000 feet.

This species is not unlike a pale brimstone-coloured representative of my *T. ceres*, to which Mr. Trimen has unaccountably given the new designation of *T. ethiopica*; our examples of the latter are from S. Africa, Natal, Mauritius, and Madagascar. The outer border of the primaries in *T. boisduvaliana* usually resembles that of *T. brenda*.

79. Terias orientis.

Terias orientis, Butler, P. Z. S. 1888, p. 71. n. 87.

♂ ♀, Ngatana, December and January.

Specimens of the preceding species sometimes agree closely with this on the upper surface, but not below.

80. Teracolus calais.

Papilio calais, Cramer, Pap. Exot. i. pl. liii. C, D (1779).

Ngatana, near wood on barra, 30th January, 1893; east shore of Lake Losugata, on grass and scrub.

81. Teracolus hanningtonii.

Teracolus hanningtoni, Butler, Ann. & Mag. Nat. Hist. ser. 5, vol. xii. p. 104. n. 8 (1883).

♀, Sabaki Valley. We originally received this species from the Victoria Nyanza.

82. Teracolus catachrysops.

Teracolus catachrysops, Butler, Ann. & Mag. Nat. Hist. ser. 5, vol. ii. p. 178 (1878).

♂ ♂, Ndoli.

Described from specimens collected at Masasi, and since received from Kilimanjaro.

83. Teracolus aurigineus.

Teracolus aurigineus, Butler, Ann. & Mag. Nat. Hist. ser. 5, vol. xii. p. 103. n. 7 (1883).

Njempo; Guaso Narok; Guaso Laschau; Guaso Nacrotia; steppes N.W. of Longari; Thagana, woods beside Ukikuya; Thegu.

84. Teracolus helvolus.

Teracolus helvolus, Butler, P. Z. S. 1888, p. 94.

Sabaki Valley, at Tanganyika.

My supposition that *T. helvolus* would prove to be restricted to Somaliland is thus proved incorrect.

85. Teracolus protomedia.

Pontia protomedia, Klug, Symb. Phys. pl. 8. figs. 13, 14 (1829).

♂ ♀, Golbanti.

86. Teracolus agoye, ♀ ? (= *Idmais fatma*, Feld.)

♂. *Anthopsyche agoye*, Wallengren, Kongl. Svensk. Vet.-Akad. Handl. 1857; Lep. Rhop. Caffr. p. 15. n. 11.

♂ ♀. *Anthocharis agoye*, Trimen, Rhop. Afr. Austr. p. 325. n. 219 (1866).

♀. Var. ? without indication of exact locality; probably Sabaki Valley.

This female differs from that described by Mr. Trimen in having traces of two spots on the median interspaces of the primaries, and a faintly indicated internal streak ending in a third spot; it comes nearest to the form which I described under the name of *Teracolus johnstoni* (the descriptions of which and of *T. opalescens* Mr. Trimen seems to have overlooked), Ent. Month. Mag. xxiii. p. 29 (1886). I strongly suspect it to be the female of the "♂ from the Lydenburg District of the Transvaal," which Mr. Trimen mentions, as the underside of the hind wings and apex of fore wings are tinted with pale creamy pinkish; it clearly demonstrates the affinity of *T. agoye* to the *T. eris* group.

Since Mr. Trimen examined our collection, we have added, through the generosity of Mr. C. G. Barrett, two pairs of *T. johnstoni* from Amshaw, King William's Town. The male is very distinct from that of typical *T. eris*; the apical area of the primaries is more restricted, with the ochreous spots brighter, broader, shorter, and only separated by slender black veins; on the second (upper) median interspace also there is a very large

oval white marginal spot, and below this again the black is externally undulating, leaving three pure white indentations confluent with the white fringe. On the secondaries the black costal border, instead of extending almost to the apex, is cut across transversely and therefore terminates much more abruptly. I have no doubt that both this and *T. opalescens* constitute constant local races, far more worthy of specific rank than many of the species which my excellent, but, as I think, inconsistent, friend has considered distinct [1].

The markings in Dr. Gregory's example are less strongly defined than in Felder's figure; but there cannot be a question as to the identity of the species; at the same time, I should doubt whether the two males associated in the Hewitson collection under the name of *T. agoye* are actually one species.

87. Teracolus puniceus. (Plate XXXVI. figs. 5, 6.)

Teracolus puniceus, Butler, P. Z. S. 1888, p. 72. n. 92.

♂, without label of exact locality; probably Sabaki Valley. The female we received from the Victoria Nyanza.

88. Teracolus foliaceus, sp. n. (Plate XXXVI. fig. 7.)

♀. Above chalky white, the basal third irrorated with fine grey scales: primaries with a conspicuous spot at the end of the cell; the apical two-thirds of costa and the apical third of wing to inner margin, as well as a large almost wedge-shaped spot only separated from the latter by a large round white spot near external angle, black, slightly suffused with brown near outer margin; a series of six sordid white spots in an arched series between costa and the above-mentioned large white spot, the first small, the second large and pyriform, the remainder regularly decreasing in size, the second, third, and fourth spots flecked with magenta; submedian vein, base of inner margin, and subcostal vein of secondaries tinted with sulphur: secondaries with a very broad external black border, occupying about one-fourth of the wing, its inner edge strongly dentated on the veins, and an oblique squamose subapical black streak from costa to centre of third median branch: body normal. Primaries below white, the base primrose-yellow, followed in the cell by a transverse greyish nebula; black spot at end of cell as above; costa and a broad apical border, tapering to first median branch, buff-yellowish, the latter transversely striated with grey and bounded internally by whitish spots, of which the first three are defined by an inner diffused bordering of argillaceous brown shading into grey-brown, and the remainder by a series of more or less acutely angulated black spots curving inwards to submedian area, the upper ones also placed on a diffused grey-brown area answering to the inner edge of the black area of the upper surface: secondaries whitish, tinted with pearl-grey and

[1] It has always been a puzzle to me that Lepidopterists, who in one genus allow unlimited variability and extraordinary ranges to the species, in a nearly-allied genus restrict both in an equally remarkable degree.

buff and transversely striated with grey; base of costal margin saffron-yellow; a rounded pale buff spot at end of cell upon a triangular greyish testaceous area, partly bounded externally by a well-defined dull copper-brown oblique bar from costa to third median branch; this bar is continued, almost at right angles, by three brown spots on a buff-tinted nebula; outer border buff; abdominal area creamy whitish: body below white. Expanse of wings 43 millim.[1]

No exact locality given; probably Sabaki Valley.

Although evidently belonging to the *T. regina* group, this female is much more heavily black-bordered than any other species of the group; the striated and clouded under surface give the insect (when its wings are closed) the appearance of a dead and mouldering leaf.

89. Teracolus phlegyas.

Anthocharis phlegyas, Butler, P. Z. S. 1865, p. 431. n. 3, pl. xxv. figs. 3, 3 *a*.

♂ ♂, no exact locality recorded; probably Sabaki Valley.

90. Teracolus imperator.

Teracolus imperator, Butler, P. Z. S. 1876, p. 132. n. 20.

♂ ♂, no exact locality recorded; probably Sabaki Valley.

91. Teracolus phœnius.

♂. *Teracolus phœnius*, Butler, Ann. & Mag. Nat. Hist. ser. 4, vol. xviii. p. 488 (1876).

♀. *Albino form*, Butler, P. Z. S. 1888, p. 74. n. 95.

Ngatana; shores of Lake Baringo; Njempo; steppes of the Kiroruma; Kavaluki Valley; Ndangi River.

Three of the four females in the above series have crimson tips to the primaries and therefore differ very slightly from females of *T. miles*. The latter will, I think, have to be considered synonymous with this species.

92. Teracolus increetus.

♀. *Teracolus increetus*, Butler, Ent. Month. Mag. xviii. p. 146 (1881).

♂. *Callosune vulnerata*, Staudinger, Exot. Schmett. pl. 23.

♂ ♂, Steppes of Thika-Shika and Ndangi River.

One of the specimens is larger than any previously received.

93. Teracolus syrtinus.

♂. *Teracolus syrtinus*, Butler, P. Z. S. 1876, p. 163. n. 124.

♀. White, with black markings above almost exactly as in the female of *T. phillipsii*; the base of the wings more suffused with grey, but less so than in *T. xanthevarne*, ♀; apical area pale

[1] The under surface of Westwood's reputed female of *T. buxtoni* somewhat approaches this species.

salmon, sometimes extending beyond the subapical irregular black band; under surface nearly as in *T. phillipsii*, but more strongly tinted with yellow, buff, and pink, and with the discal brown markings larger and better defined.

Expanse of wings 42–43 millim.

Ngatana; platform on Kikuyu escarpment, Kedong, Newà in forest; shores of Lake Baringo; Njempo.

This is evidently an abundant species.

93 *a*. Teracolus citreus.

Teracolus citreus, Butler, P. Z. S. 1876, p. 162. n. 120.

Kinani, in the afternoon; also probably Sabaki Valley.

This differs from *T. syrtinus* in its usually inferior size, less black-bordered primaries, and the pink colouring on the under surface of the secondaries. It probably bears the same relationship to *T. syrtinus* that *T. eucharis* of India does to *T. titea*. Unfortunately only one example has an indication of exact locality, so that it is impossible to tell whether the two types occur together; but with our present knowledge of the variability of species I hesitate to consider them distinct.

94. Teracolus nouna.

Anthocharis nouna, Lucas, Expl. Alg., Zool. iii. p. 350. n. 14, pl. i. fig. 2 (1845).

♂, Machakos, two damaged specimens.

95. Teracolus theogone?

Anthocharis theogone, Boisduval, Sp. Gén. Lép. i. p. 575. n. 23 (1836).

♂, Thagana, woods beside Ukikuya; ♀, park-land between Thegu and Ukikuya.

Only one damaged pair was obtained. The male is almost exactly like typical *T. theogone*, but has larger marginal spots to the secondaries: the female has no trace of the inner marginal broad black band to the primaries, and therefore nearly approaches that sex of *T. epigone*; the under surface of the secondaries also is pink, not yellowish. Possibly this is a species between *T. theogone* and *T. epigone*; but the two specimens are not good enough to describe.

96. Teracolus pyrrhopterus, sp. n. (Plate XXXVI. figs. 8, 9.)

Allied to *T. theogone*; the male above with the patch upon the black apical area orange-vermilion, as in the female of that species; the costal margin black quite to the base; a broad truncated black streak on internal area from base to second third of wing: secondaries with a similar though less regular costal streak; two ill-defined unequal spots on third median and radial veins (recalling the marking of female *T. hippocrene*), and a marginal series of hastate black spots, almost confluent: body normal. Primaries below white, the costa, apex, outer margin, and

fringe soft rose-colour, but towards external angle the fringe is tipped with white; a large subapical patch of deep orange-salmon, blending with the rose-colour at apex: secondaries rose-colour; a white diffused subapical nebula; the surface, especially towards the base, sparsely irrorated and striated with blackish; a black-dotted orange-salmon spot at end of cell and an imperfect angulated band, as in *T. theogone*, of brown: body below white. Expanse of wings 40 millim.

♀. Rather smaller than the male: in pattern nearly resembling *T. procne*; but the orange subapical band coloured as in the male, and the base of both wings much more widely and densely dusted with blackish; the fringe of primaries rosy as in the male: below as in the male, but slightly deeper in colour, especially on the secondaries, where the interrupted band is gravel-red. Expanse of wings 36 millim.

One slightly damaged pair, at Thagana, in woods beside Ukikuya.

In the fiery colouring of the under surface this species is quite remarkable. A male variety also occurs which above more nearly approaches *T. omphale*, and below has the apical border of primaries and ground-colour of secondaries creamy whitish, with the band of secondaries brick-red.

97. Teracolus zera.

♂ ♀. *Anthocharis zera*, Lucas, Revue et Mag. de Zool. iv. p. 423 (1852).

♂, Guaso Laschau; ♀, Guaso Nacrotia; ♂, Ndoro, steppes at base of Kenya, 7000 feet.

The description by M. Lucas probably confounds several different types (species?); the only safe guide in the description seems to be the orange tint which he mentions as pervading the under surface of the secondaries in the male; he, however, fails to note that on the under surface the veins are dusky; in the examples above recorded they are black towards anal angle and on the abdominal fold. The absence of the small orange spot attached to the black discocellular dot is not likely to be a constant character.

98. Teracolus helle.

Teracolus helle, Butler, P. Z. S. 1876, p. 149. n. 75.

Gopo lal Mavari, Laitsipia; Guaso Narok; Guaso Laschau; Guaso Nacrotia; steppes N.W. of Longari; Ndoro, steppes at base of Kenya, 7000 feet; Karati, Konu, Ukikuya, Tana, in dense forest; sandy steppes on the south bank of the Kiroruma.

99. Teracolus subvenosus.

Teracolus subvenosus, Butler, Ann. & Mag. Nat. Hist. ser. 5, vol. xii. p. 105. n. 10 (1883).

♂ ♀, Miviruni, Elmeteila Basin, Baringo Valley, Mjaki; Gopo

lal Mavari, Laitsipia; Alng'aria; Guaso Laschau; Thagana, woods beside Ukikuya; Thegu; Kavaluki Valley, Ukamba.

100. Teracolus hero.

Teracolus hero, Butler, P. Z. S. 1876, p. 150. n. 81, pl. vi. fig. 12.

♂ ♀, no exact locality recorded; probably Sabaki Valley.

101. Teracolus antevippe.

Anthocharis antevippe, Boisduval, Sp. Gén. Lép. i. p. 572. n. 18, pl. 18. fig. 3 (1836).

♂ ♀, Guaso Narok.

In *T. zera*, *helle*, *subvenosus*, and *hero* the veins are more or less blackened on the under surface, but in *T. antevippe* they are uniform with the white ground-colour; the black veins when present do not result from abrasion, but are clothed with black scales. Of course it is possible that this character may prove to be unimportant, but that remains to be seen.

102. Teracolus omphale.

Pieris omphale, Godart, Enc. Méth. ix. p. 122. n. 12 (1819).

♂ ♀, no exact locality recorded; probably Sabaki Valley.

103. Teracolus exole.

♂. *Anthocharis exole* (part), Reiche, Ferr. Gal. Voy. Abyss., Ent. p. 460, pl. 31. fig. 4 (1849).

♀. *Anthocharis achine*, Lucas (not Cramer), Lep. Exot. pl. 37. fig. 2 (1835).

♀, no exact locality recorded; probably Sabaki Valley.

This is probably an extreme form (possibly a brood) of the preceding.

104. Teracolus thruppi.

Teracolus thruppi, Butler, P. Z. S. 1885, p. 771, pl. xlvii. fig. 10.

Barra near Merifano; S.W. corner of Lake Baringo, Ukikuya.

105. Teracolus minans.

Teracolus minans, Butler, Ent. Month. Mag. xviii. p. 229 (1882).

♂ ♀, Njempo.

A melanistic form of the female occurs in this, as in other allied species.

106. Catopsilia pyrene.

Colias pyrene, Swainson, Zool. Ill. i. pl. 51 (1820–21).

♂ ♀, Ngatana; Kinani; Thika-Shika.

107. Catopsilia florella.

Papilio florella, Fabricius, Syst. Ent. p. 479. n. 159 (1775).

♂ ♀, Ndoro, steppes at base of Kenya, 7000 feet; Ndangi River.

108. Glutophrissa contracta.

Glutophrissa contracta, Butler, P. Z. S. 1888, p. 75. n. 102.

♂, Ngatana; ♀, Lake Losuguta.

109. Phrissura lasti.

Mylothris lasti, Grose-Smith, Ann. & Mag. Nat. Hist. ser. 6, vol. iii. p. 124 (1889).

Belenois lasti, Smith & Kirby, Rhop. Exot. ii. pl. *Belen.* ii. figs. 1–3 (1892).

♂ ♀, Sabaki Valley, at Tanganyika.

This is probably the species mimicked by *Mylothris narcissus*.

110. Belenois thysa.

Pieris thysa, Hopffer, Ber. Verh. Ak. Berl. 1855, p. 639. n. 1; Peters's Reise nach Mossamb., Zool. v. p. 349, pl. 21. figs. 7–10 (1862).

Kibwezi.

111. Belenois severina.

Papilio severina, Cramer, Pap. Exot. iv. pl. cccxxxviii. G, H (1782).

Ngatana; Barra near Merifano; Golbanti; Miviruni; steppes of Thika-Shika.

The majority of the specimens were obtained at Golbanti.

111 *a*. Belenois infida. (Plate XXXVII. figs. 1, 2.)

Belenois infida, Butler, P. Z. S. 1888, p. 78. n. 111.

Golbanti; Miviruni; Lake Losuguta; shores of Lake Baringo; Njempo; Gopo lal Mavari; Guaso Narok; steppes N.W. of Longari; Thagana; Thegu; Ukikuya; Kithungulu; steppes of Thika-Shika; steppes between Athi and Thika; Athi plains near Chjanjavi; Machakos; Maka; Ndangi River; Sabaki Valley.

The enormous series of this species collected by Dr. Gregory proves, beyond dispute, that *B. infida* is only a Central and East African development of *B. severina*, to which every possible link exists; it is only by eliminating all the specimens having dark veins on the under surface from the series, that *B. severina* can be at all distinguished from this race. The black bar at the end of the cell, in this genus, proves to be a most unreliable character for the discrimination of species; indeed I have very little doubt that *Pieris ogygia* of Trimen will prove, when a large series can be obtained, to be simply a development of *Belenois thysa* of Hopffer. *Belenois zochalia* (as will be shown presently) varies in the same way.

112. Belenois mesentina.

Papilio mesentina, Cramer, Pap. Exot. iii. pl. cclxx. A, B (1782).

Golbanti; Kinani; Njempo; Guaso Laschau; Kithungulu, Konu, Ukikuya, on shrub-covered plateau with deep gorges; sandy steppes on the south bank of the Kiroruma, Tana river-basin; steppes of the Thika-Shika; steppes between Athi and Thika; Athi plains near Chjanjavi; Bondoni and Kapte Plains; Ndangi River.

Represented by the form *B. lordaca*, and the larger but otherwise exactly similar *B. agrippina*.

113. Belenois gidica.

Pieris gidica, Godart, Enc. Méth. ix. p. 131. n. 37 (1819).

Witu, in garden; Golbanti; Njempo; Ukikuya; steppes of Thika-Shika; steppes between Athi and Thika; Ndoli; Kibwezi.

One female nearly approaches typical *B. abyssinica*.

114. Belenois zochalia. (Plate XXXVII. fig. 3.)

Pieris zochalia, Boisduval, Sp. Gén. Lép. i. p. 508. n. 100 (1832).

♂ ♀, Gopo lal Mavari, Laitsipia; Guaso Laschau; steppes N.W. of Longari; Thagana, in woods beside Ukikuya; Thegu; Ndoro, steppes at base of Kenya, 7000 feet; on shrub-covered plateau at Kithungulu, Konu, Ukikuya, Tana river-basin.

Two forms of this species were obtained, the first only differing from the southern type in its usually slightly superior size; the male with slightly narrower oblique black bar at end of cell, larger white hastate spots on the apical black area, and primrose-whitish colouring of the under surface of the secondaries. The second form, however, has the black discocellular bar reduced to a spot at the inferior angle of the cell in the male, but in the female only slightly narrower than in the first form; on the under surface the veins are more heavily defined and sometimes quite black. It is useless to attempt to separate the latter from *B. zochalia*; and as it shows a decided tendency in the direction of *B. crawshayi*, it is within the range of possibility that, as the fauna of Africa becomes better known, a series of gradations between *B. zochalia* and that apparently distinct form will be discovered. Indeed, after seeing the series of grades between typical *B. infida* and *B. severina* nothing will surprise me in the way of linking the African species of *Belenois*. I am quite satisfied that *B. gidica* and *B. abyssinica* cannot be regarded as distinct species.

115. Synchloë johnstonii.

Synchloë johnstonii, Crowley, Trans. Ent. Soc. 1887, p. 35, pl. iii. figs. 1–3.

Gopo lal Mavari; Guaso Laschau; steppes N.W. of Longari; Thagana, in woods beside Ukikuya.

116. Pinacopteryx ortygna.

♂. *Mylothris ortygna*, Hübner, Exot. Schmett. Zutr. figs. 985, 986 (1832).

♂ ♀, on grassy steppes at Miviruni.

117. Pinacopteryx liliana.

♂ ♀. *Belenois liliana*, H. Grose Smith, Ann. & Mag. Nat. Hist. ser. 6, vol. iii. p. 122 (1889).

Pinacopteryx liliana, Smith & Kirby, Rhop. Exot. ii. *Pinac.* 1, figs. 7–9 (1893).

♀, Ngatana, 30th January 1893, near wood.

118. Pinacopteryx pigea.

Pieris pigea, Boisduval, Sp. Gén. Lép. i. p. 523. n. 124 (1836).

♂, Steppes of Thika-Shika.

119. Herpænia iterata. (Plate XXXVII. fig. 4.)

Herpœnia iterata, Butler, P. Z. S. 1888, p. 96. n. 8.

Njempo.

120. Nepheronia capensis.

Eronia buquetii, var. γ. *capensis*, Hopffer, in Peters's Reise Mossamb. p. 363 (1862).

Nzoai.

Only one example, somewhat shattered, was obtained.

121. Nepheronia buquetii.

Callidryas buquetii, Boisduval, Sp. Gén. Lép. i. p. 607. n. 1 (1836).

♂ ♀, Shores of Lake Baringo. (Common.)

122. Nepheronia thalassina.

Pieris thalassina, Boisduval, Sp. Gén. Lép. i. p. 443. n. 8 (1836).

♂, no exact locality recorded; probably Sabaki Valley.

123. Nepheronia argia.

Papilio argia, Fabricius, Syst. Ent. p. 470. n. 118 (1775).

♂ ♀, no exact locality recorded; probably Sabaki Valley.

The female corresponds with that noted by me (P. Z. S. 1888, p. 96, from Kilimanjaro), excepting that the patch of red is wanting on the upper surface of the primaries.

124. Eronia dilatata.

Eronia dilatata, Butler, P. Z. S. 1888, p. 96. n. 9.

Eronia cleodora, var. *latimarginata*, Weymar, Stett. ent. Zeit. 1892, p. 96. n. 13.

Kibwezi.

125. Papilio kirbyi.

Papilio kirbyi, Hewitson, Ent. Month. Mag. ix. p. 146 (1872); Exot. Butt. v., *Pap.* pl. 13. fig. 42 (1873).

No record of exact locality; probably Sabaki Valley.

126. Papilio colonna.

Papilio colonna, Ward, Ent. Month. Mag. x. p. 151 (1873).
Papilio trajicus, Butler, l. c. xiii. p. 56 (1876).

Kibwezi.

127. Papilio nyassæ.

Papilio nyassæ, Butler, Ann. & Mag. Nat. Hist. ser. 4, vol. xix. p. 459 (1877).

No exact locality recorded; probably Sabaki Valley.

128. Papilio philonoë.

Papilio philonoë, Ward, Ent. Month. Mag. x. p. 152 (1873).

Ngatana.

129. Papilio demoleus.

Papilio demoleus, Linnæus, Mus. Lud. Ulr. p. 214 (1764).

Ndara; Guaso Laschau; Ndangi River.

130. Papilio constantinus.

Papilio constantinus, Ward, Ent. Month. Mag. viii. p. 34 (1871); Afr. Lép. p. 1, pl. i. figs. 1, 2 (1873).

Kibwezi.

131. Papilio erinus.

Papilio erinus, Gray, Cat. Lep. Ins. B. M. i. p. 35. n. 127 (1865).

Kibwezi.

132. Papilio phorcas.

Papilio phorcas, Cramer, Pap. Exot. i. pl. ii. B, C (1775).

Alng'aria; Rangatan, Ndari.

133. Papilio merope.

Papilio merope, Cramer, Pap. Exot. ii. pl. 151. figs. A, B (1779).

One female, in bad condition, of the form figured by Trimen (Trans. Linn. Soc. xxvi. pl. 43. fig. 4, 1869).

Golbanti.

134. Sarangesa motozioides.

Sarangesa motozioides, Holland, Ann. & Mag. Nat. Hist. ser. 6, vol. x. p. 288. n. 9 (1892).

Mtoto wa Ande; Karianduri; shores of Lake Baringo, Njempo.

135. Sarangesa djælælæ.

Pteryyospidea djælælæ, Wallengren, Kongl. Svensk. Vet.-Akad. Handl. 1857; Lep. Rhop. Caffr. p. 54.

Ndoro, steppes at base of Kenya 7000 feet; Athi Plains, near Chjanjavi.

136. Osmodes ranoha.

Pamphila ranoha, Westwood, in Oates's 'Matabele-land,' p. 353 (1881).

Fuladoya.

137. Gegenes letterstedti.

Hesperia letterstedti, Wallengren, Kongl. Svensk. Vet.-Akad. Handl. 1857; Lep. Rhop. Caffr. p. 49.

Guaso Nacrotia, Laitsipia.

When Mr. Samuel Scudder was last in Europe, he brought with him a number of carefully coloured drawings of *Hesperidæ* for comparison with types in various collections. Among other species thus cleared up, he proved, by camparison with Latreille's type of *G. hottentota*, that (instead of being a form of *G. letterstedti*) it was the *G. obumbrata* of Trimen.

138. Baoris fatuellus.

Pamphila fatuellus, Hopffer, Monatsber. k. Akad. Wiss. Berlin, 1855, p. 643. n. 25; Peters's Reise nach Mossamb. v. p. 417, pl. 27. figs. 3, 4 (1862).

No record of exact locality; probably Sabaki Valley.

139. Baoris inconspicua.

Hesperia inconspicua, Bertoloni, Mem. Acc. Bol. 1849, p. 15.

Ngatana; Njempo.

140. Rhopalocampta pisistratus.

Hesperia pisistratus, Fabricius, Ent. Syst. iii. 1, p. 345. n. 311 (1793).

Kibwezi.

141. Rhopalocampta keithloa.

Rhopalocampta keithloa, Wallengren, Kongl. Svensk. Vet.-Akad. Handl. 1857; Lep. Rhop. Caffr. p. 48.

No exact locality recorded; probably Sabaki Valley.

There is also one much damaged male, apparently of *Cyclopides quadrisignatus*, from Rangatan.

The Moths, unfortunately, are, in many cases, too much injured for identification, but I have succeeded in determining the following:—

142. Macroglossa trochiloides.

Macroglossa trochiloides, Butler, P. Z. S. 1875, p. 5. n. 6.

Ngatana.

143. Chærocampa celerio.

Sphinx celerio, Linnæus, Syst. Nat. i. 2, p. 800 (1767).

One worn example at Alng'aria.

144. Ægocera meneta.

Noctua meneta, Cramer, Pap. Exot. i. pl. lxx. D (1775).

One worn example from Kinani.

145. Ægocera tricolor.

Ægocera tricolor, Druce, Ent. Month. Mag. xx. p. 155 (1883).

One fairly good female, without record of exact locality, but probably from the Sabaki Valley.

146. Charilina amabilis.

Noctua amabilis, Drury, Ill. Exot. Ent. ii. pl. 13. fig. 3 (1773).

Ngatana.

Either all the specimens are uniformly faded, or they represent a distinct race in which the whole of the black and red of typical *C. amabilis* are replaced by pale brown, almost like dead gold; the markings are absolutely normal in pattern.

147. Euchromia africana.

Euchromia africana, Butler, Journ. Linn. Soc. vol. xii. p. 364.

No record of exact locality; probably Sabaki Valley.

148. Deiopeia pulchella.

Tinea pulchella, Linnæus, Syst. Nat. i. p. 534. n. 238 (1758).

No record of exact locality; probably Sabaki Valley.

149. Argina cingulifera.

Deiopeia cingulifera, Walker, Lep. Het. ii. p. 569 (1854).

Var. *Deiopeia ocellina*, Walker, l. c. p. 571 (1854).

Ndoli.

150. Ghoria nigricostata, sp. n. (Plate XXXVII. fig. 5.)

Primaries dull silvery white with golden reflections; costal margin black: secondaries pale golden buff; thorax above silvery, vertex of head brownish; abdomen golden ochreous. Primaries below leaden grey, with costal and external borders golden ochreous; secondaries and body below golden ochreous. Expanse of wings 37 millim.

Platform on Kikuyu Escarpment, Kedong.

151. Lithosia ?, sp.

One much damaged example of a species with coarsely pectinated antennæ; probably new, but not in condition to describe.

Ukikuya.

152. Rhanidophora phedonia.

Bombyx phedonia, Cramer, Pap. Exot. iv. pl. cccxlvii. C (1782).

Alng'aria; Maka.

Two much-damaged examples were obtained.

Single examples of *Nolidæ* and *Sarrothripinæ* in poor condition are also in the collection, including one specimen of a species of *Siccia* allied to *S. caffra*. With one exception, these are without exact localities; therefore probably from the Sabaki Valley.

153. Sænura lineata.

Spilosoma lineata, Walker, Lep. Het. iii. p. 672. n. 17 (1855).

No exact locality recorded; probably Sabaki Valley.

154. Alpenus purus.

Alpenus purus, Butler, P. Z. S. 1878, p. 382.

Two examples from Njempo.

155. Teracotona submacula, var. rhodophæa.

Spilosoma submacula, Walker, Lep. Het. iii. p. 672. n. 15 (1855).
Var. *Aloa rhodophæa*, Walker, l. c. Suppl. i. p. 302 (1864).

No exact locality recorded; probably Sabaki Valley.

It is just possible that *T. rhodophæa* may prove to be a constant local form: the chief differences from typical *T. submacula* consist in the absence of the black discocellular spot on the upper surface of the primaries, the white variegation of these wings, and the uniformly rosy ground-colour of the secondaries; this last character is, however, shared by a specimen from Natal, to which I gave the name of *T. roseata*.

156. Pleretes tigris.

Hypercompa tigris, Butler, Ann. & Mag. Nat. Hist. ser. 5, vol. xii. p. 106. n. 13 (1883).

No exact locality recorded; probably Sabaki Valley.

The three specimens obtained are all more or less damaged; they differ from the types in the much broader leaden-grey bands, the more creamy ground-colour of the primaries, and the deeper orange of the secondaries.

157. Secusio parvipuncta.

Secusio parvipuncta, Hampson, Ill. Typ. Lep. Het. viii. p. 46, pl. 139. fig. 6.

Secusio strigata, Hampson (? Walker), Fauna of Brit. India, Moths. vol. ii. p. 50. n. 1272, fig. 23.

Steppes of the Thika-Shika; steppes between Athi and Thika, and Kavaluki Valley, Ukamba.

It is quite possible that this may be only a variety of Walker's *S. striyata=hymenœa*, Gerst.; but, hitherto, intermediate links between the two forms have not been received, and therefore, for the present, I prefer to keep them separate; at the same time the difference between them is no greater than between individual examples of *S. parvipuncta*.

158. Leptosoma restrictum, sp. n.

Allied to *L. leuconoë*, of which it appears to be an Eastern representative; it differs in having the band of primaries pure semitransparent white, without the strong indentations on the veins which are present in *L. leuconoë*; the white area of the secondaries much more restricted, owing to the considerably greater width of the external black border. Expanse of wings 49 millim.

Sabaki Valley.

We have a male from Wasin in the Museum; it is slightly smaller than female examples, but otherwise similar in pattern and coloration.

159. Lacipa gracilis.

♂ ♀. *Lacipa gracilis*, Hopffer, in Peters's Reise nach Mossamb. pl. xxviii. figs. 4, 5.

♂, Tzavo, at night; ♀, var. Sabaki Valley.

The female example has lost all the black spots on the primaries and is larger than in Hopffer's figure, but I believe it to be a simple variety.

160. Psalis securis.

Psalis securis, Hübner, Samml. exot. Schmett. Zutr. figs. 291, 292.

Sabaki Valley.

Does not differ at all from Ceylonese examples.

161. Lymantria, sp.

A single example, probably from the Sabaki Valley, of a species new to us; but it is without head, and is too much worn for certain determination.

162. Heteranaphe, sp.

One very rubbed example of a species which I have hitherto been unable to identify; it is not good enough to describe.

Mbololo, near summit, 5600 feet elevation.

Phasicnecus, gen. nov. (*Lasiocampidæ*).

Aspect of *Lemonia*, but differing entirely in neuration. Costal vein of primaries normal; discoidal cell short and narrow,

terminating at basal third; subcostal branching beyond the end of cell, the first branch thrown off just beyond the cell, running obliquely upwards to costal vein, which it joins just beyond its middle; the two other branches forming a long fork to outer margin immediately below apex; upper radial also emitted from the subcostal vein immediately beyond the cell; upper discocellular oblique and slightly inangled at its upper extremity; lower discocellular nearly transverse; costal vein of secondaries normal; discoidal cell short, narrow, almost elliptical, not quite extending to basal third of wing; subcostal branches emitted from a long footstalk, upper discocellular very oblique, almost in a line with the radial; lower discocellular less oblique, half the length of upper; radial and median branches nearly equidistant, the first and second branches being widest apart at their origins.

163. Phasicnecus gregorii, sp. n. (Plate XXXVII. fig. 6.)

♀. Wings semitransparent buff; primaries with ochreous costal margin and basal hairy clothing; a slightly sinuous series of six vinous spots across the disc from below subcostal vein to below first median branch; body ochreous; antennæ rufous brown with buff pectinations: under surface paler and immaculate, antennæ below somewhat greyish. Expanse of wings 40 millim.

Sabaki Valley.

One slightly rubbed female example.

164. Lebeda, sp.

A very much shattered female specimen of a species very close to (if distinct from) *L. ferruginea*; in pattern it seems to correspond almost exactly; but it is smaller and more sandy in colouring; in any case it has been too much injured by *Dermestes* to be worth preserving.

Clearing through forest six miles east of Witu, 22nd December, 1892.

165. Trilocha varians, var. albicollis.

Naprepa albicollis, Walker, Journ. Linn. Soc. vi. p. 171 (1862).

Ngatana.

166. Saturnia oubie.

Bombyx oubie, Guérin, Voy. in Abyss. p. 387, pl. xii. figs. 1, 2.

Platform on Kikuyu Escarpment above Kedong, Newia.

One much shattered example.

167. Saturnia, sp.

Two extremely worn pairs of a species close to *S. wallengrenii*; possibly that species.

♂ ♀, Tzavo.

Felder's figure is not very good, and the specimens now received are much shattered and rubbed; so that it is impossible to be certain whether they are really distinct.

168. Antheræa arata.

Antheræa arata, Westwood, see Maassen & Weymer, Beitr. Schmett. fig. 59 (1881).

♂, in wood on flanks of Mbololo, 4000 feet

169. Gynanisa maia.

Saturnia maia, Klug, Neue Schmett. pl. 5. fig. 1 (1836).

♀, Ndara, 31st March, 1893.

Slightly larger and more varied with white than southern specimens, in which respects it is intermediate between the latter and the example mentioned in P. Z. S. 1893, p. 678.

170. Duomitus capensis.

Zeuzera capensis, Walker, Lep. Het. vii. p. 1533. n. 11 (1856).

Lari lal Morjo, Laitsipia.

171. Azygophleps inclusa.

♀. *Zeuzera inclusa*, Walker, Lep. Het. vii. p. 1534. n. 12 (1856).

♂, Sabaki Valley.

A third species of *Cossidæ*, from Njempo, is too much shattered for determination: this is also the case with many of the species in the remaining families of Moths; but the following can be determined:—

172. Heliothis armigera.

Noctua armigera, Hübner, Noct. pl. 79. fig. 370 (1805–24).

One very worn example from Njempo.

173. Leucania torrentium.

Leucania torrentium, Guenée, Noct. i. p. 88. n. 132.

Sabaki Valley.

174. Microsemyra, sp.

Sabaki Valley.

Not in good condition; but apparently the same as a species from Amshaw, S. Africa, presented by Mr. Barrett.

175. Acrapex, sp.

Sabaki Valley.

One worn example of a species allied to *A. leucophlebia*, Hampson, without palpi or antennæ.

176. Laphygma orbicularis.

Caradrina orbicularis, Walker, Lep. Het. x. p. 294. n. 26 (1856).

Maka.

177. Caradrina indicata.

Caradrina indicata, Walker, Lep. Het. x. p. 299. n. 39 (1856).

Sabaki Valley.

178. Perigea conducta.

Caradrina conducta, Walker, Lep. Het. x. p. 296. n. 32 (1856).

Thiriati.

179. Ilattia axis.

Amyna axis, Guenée, Noct. i. p. 407. n. 378 *b*.

Sabaki Valley.

180. Euphasia umbrigera.

♀. *Acontia umbrigera*, Felder, Reise der Nov., Lep. Het. pl. cviii. fig. 34.

♂, Tzavo, at night.

Felder's figure is peculiar, the secondaries being intermediate between the white coloration of the male and the brown of the female.

181. Tarache insocia.

♂. *Acontia insocia*, Walker, Lep. Het. xii. p. 788. n. 18 (1857).

♀, Tzavo.

The female was described by Walker under the name of *Acontia pyralina*.

182. Tarache secta?

Acontia secta, Guenée, Noct. ii. p. 221. n. 997.

♂ ♀, Njempo.

183. Tarache upsilon.

Calophasia upsilon, Walker, Lep. Het. Suppl. iii. p. 763 (1865).

Sabaki Valley.

184. Tarache tropica?

Acontia tropica, Guenée, Noct. ii. p. 217. n. 988.

Ngatana. (Very much faded!)

185. Metachrosta mianoides.

Ozarba mianoides, Hampson, Ill. Typ. Lep. Het. ix. p. 98, pl. clxii. fig. 16 (1893).

Sabaki Valley.

Perhaps slightly greyer than specimens from the Nilgiris, but not otherwise differing.

186. Eublemma reducta, sp. n. (Plate XXXVII. fig. 7.)

Allied to *E. olivacea*, Walk., but considerably smaller; primaries of male whity brown irrorated with grey, of female brownish grey;

subbasal line only indicated by a dusky costal spot, antemedial line by an oblique costal dash and greyish irregular scaling; the female also with a short oblique line from inner margin almost to cell; one or two additional badly-defined costal dusky spots from middle of costa and a little group of ferruginous scales towards apex partly enclosed by a horseshoe-shaped dark grey marking, the outer arm of which is confluent with a dark grey apical patch enclosing two black dots; fringe of male creamy white: secondaries of male white, of female greyish brown; body of male white, of female greyish white; under surface white, the costal area of primaries more or less sprinkled with grey scales, a dusky spot in cell, and a second, better defined, at end of cell. Expanse of wings, ♂ 16 millim., ♀ 17 millim.

Sabaki Valley.

187. Cyligramma latona.

Phalæna (*Noctua*) *latona*, Cramer, Pap. Exot. i. p. 20, pl. xiii. B (1779).

Kinani; shores of Lake Baringo; Larabwal, Laitsipia; Thagana; Thiriati.

188. Cyligramma limacina.

Cyligramma limacina, Guérin, Icon. Règne Anim., Ins. pl. 89. fig. 2, texte, p. 520.

Thagana and steppes of Thika-Shika.

189. Baniana intorta.

Athyrma intorta, Swinhoe, Trans. Ent. Soc. 1891, n. 150.

Baniana intorta, Hampson, Ill. Typ. Lep. Het. ix. p. 106, pl. clxiii. fig. 3 (1892).

Sabaki Valley.

190. Plecoptera reversa.

Poaphila reversa, Walker, Lep. Het. Suppl. iii. p. 991 (1865).

Sabaki Valley.

191. Colbusa pentagonalis, sp. n. (Plate XXXVII. fig. 8.)

Primaries above cupreous brown, purplish beyond the middle; costal edge creamy white; a white very oblique stripe commencing near base of inner margin, bounding the subcostal vein to end of cell, where it is acutely angulated, and passing obliquely backwards across the wing to just below first median branch, where it is again abruptly angulated and runs inwards to inner margin; this stripe thus encloses a large purplish-black pentagonal patch; a broad blackish marginal band, its inner edge diffused, its outer edge bounded by a white stripe and then a slender black line: fringe white: secondaries with the basal half sericeous whity brown, bounded externally, from anal angle to cell, by a white stripe; external half dusky greyish; a submarginal slender white

line from anal angle to radial vein; fringe white. Head and front of thorax purplish black; shaft of antennæ and a connecting line across the head white; back of thorax dusky, abdomen whity brown. Primaries below sericeous greyish brown; the black patch of the upper surface faintly indicated by a wedge-shaped whitish-bordered patch; fringe white: secondaries whity brown, speckled with grey-brown, which becomes denser and forms a diffused patch at apex; a dusky elongated spot at end of cell; a slender blackish marginal line; fringe white: body below sericeous whitish. Expanse of wings 25 millim.

Sabaki Valley.

192. Trigonodes hyppasia.

Phalæna-Noctua hyppasia, Cramer, Pap. Exot. iii. p. 99, pl. ccl. E (1782).

Nzoai.

193. Acantholipes circumdata.

Hydrelia? circumdata, Walker, Lep. Het. xv. p. 1763 (1858).

Nzoai and Sabaki Valley.

194. Drasteria mutuaria.

Remigia mutuaria, Walker, Lep. Het. xiv. p. 1506. n. 7 (1857).

Kithungulu.

195. Remigia repanda.

Noctua repanda, Fabricius, Ent. Syst. iii. 2, p. 49. n. 133 (1793).

Ngatana; Ndara.

Two much-worn examples of species belonging, probably, to different genera allied to *Zethes* complete the typical *Noctuæ*.

196. Ophiuche masurialis.

Hypena masurialis, Guenée, Delt. et Pyral. p. 38. n. 40.

Sabaki Valley.

197. Ophiuche echionalis.

Hypena echionalis, Walker, Lep. Het. xvi. p. 230 (1858).

Mkonumbi, grassy steppes.

198. Hypena vulgatalis.

Hypena vulgatalis, Walker, Lep. Het. xvi. p. 82 (1858).

Hypena palpitralis, Walker, l. c.

Karati; Konu District; Ukiknya country; Tana river-basin, beside swamp.

Three very much-worn examples.

Three other specimens in the collection I have been unable to name: two of these may be modifications of *H. tristalis*; the third is probably new, but too bad for description.

The *Pyralidæ* are poorly represented by about a dozen species in worn condition.

199. Pyralis, sp.

A single damaged specimen of a species apparently distinct from any in the Museum; probably most nearly related to *P. ocellalis*.

Sabaki Valley.

200. Udea martialis.

Scopula martialis, Guenée, Delt. et Pyral. p. 398. n. 517.

Camp below the old ice-fall, Mount Kenya, 10,500 feet; upper bamboo zone, 9000 feet; lower bamboo zone, 8000 feet; Ndoro, steppes at base of Kenya, 7000 feet; Karati and Kithungulu, Ukikuya.

201. Eudioptes indica.

Eudioptes indica, Saunders, Zoologist, ix. p. 3070 (1851).

Ngatana.

202. Hydriris ornatalis.

Asopia ornatalis, Duponchel, Lép. viii. 2, p. 207, pl. 223. fig. 8.

Nzoai.

203. Duponchelia fovealis.

Duponchelia fovealis, Zeller, Isis, 1847, p. 588.

Sabaki Valley.

204. Coptobasis, sp.

A single example of a species near *C. tricolor* in poor condition.

Karati, Ukikuya.

205. Hymenia recurvalis.

Phalæna recurvalis, Fabricius, Ent. Syst. iii. 2, p. 237. n. 407.

Mkonumbi and Njempo.

206. Bocchoris inspersalis.

Botys inspersalis, Zeller, Caffr. p. 33.

Sabaki Valley.

207. Paramorpha, sp.?

One much-rubbed example of a species probably referable to this genus.

Kithungulu.

208. Antigastra catalaunalis.

Botys catalaunalis, Duponchel, Lép. viii. p. 330, pl. 232. fig. 8.

Sabaki Valley.

The remainder of the *Pyralidæ*, the *Crambidæ*, *Phycitidæ*, and *Tineidæ* I can do nothing with, excepting that there is one rather good example of *Dysphylia viridella*, Ragonot, from the Sabaki Valley.

The *Geometridæ* are also mostly in bad condition, but the following are identifiable :—

209. Tephrina observata.

Tephrina observata, Walker, Lep. Het. xxiv. p. 963. n. 32 (1861).

Nzoai.

210. Sterrhanthia sacraria.

Phalæna-Geometra sacraria, Linnæus, Syst. Nat. i. 2, p. 863. n. 220.

Ndara and Njempo.

211. Ortholitha monosticta, sp. n. (Plate XXXVII. fig. 9.)

Nearest to *O. megalaria* : wings silvery greyish white, with faint brassy reflections ; costa of primaries slightly browner ; an oblique black bar on the discocellulars ; a slightly arched grey stripe crossing the disc parallel to outer margin and followed by two very badly-defined submarginal stripes, the inner one often partly obliterated ; two more slender stripes traverse the fringe of all the wings. Head, prothorax, and patagia brownish grey ; remainder of body whitish ; antennæ white, with blackish pectinations in the male. Wings below greyer, all the veins pale buff ; costa of primaries with a golden reflection, irrorated with grey, traces of the commencement of the first two transverse stripes as far as upper radial vein ; discocellular bar replaced by a cuneiform oblique whitish-edged black spot : secondaries white irrorated with grey ; the costa tinted with pale buff ; a black spot on upper discocellular and a series of four black dots on the median and radial veins ; a submarginal squamose brownish-grey line ; margin also grey : body below brassy, legs slightly dusted with grey. Expanse of wings 32 millim.

Guaso Nyiro ; steppes N.W. of Longari ; Thegu.

212. Cataclysme argyridia, sp. n. (Plate XXXVII. fig. 10.)

Primaries above silver-grey, divided into three nearly equal parts by two white irregular stripes, which indicate the central band, the inner stripe }-shaped, the outer wider, better defined, undulated, almost in the form of the Greek letter ξ (but with the tail continued almost to the length of the character) on the left hand side ; on the right hand it consequently more nearly resembles a figure 3, also with the lower extremity continued : secondaries pure white, crossed before the middle by an equally bisinuate grey band, the centre between the two sinuations forming an acute angle directed outwards ; a dotted grey line, duplex at abdominal margin, followed by an external rather broad grey border ; a sub-

marginal series of ill-defined whitish spots on the border; fringes of all the wings white spotted with grey. Antennæ ochraceous; thorax grey; abdomen grey, with white segmental bands; anal extremity ochreous. Wings below slightly paler than above, otherwise similar: body below creamy whitish, tarsi tinted with ochreous. Expanse of wings 29 millim.

Mount Kenya, in bamboo-jungle at 7500 feet, and in the upper bamboo zone at 900 feet.

I know of no species nearly related to this very pretty little Geometer.

213. Philereme natalata.

Scotosia natalata, Walker, Lep. Het. xxv. p. 1351. n. 19 (1862).

♀, Nzoai.

214. Lasiochlora saliata.

Racheospila saliata, Felder, Reise der Nov., Lep. iv. pl. cxxvii. fig. 36.

Ngatana.

215. Problepsis vestalis.

Argyris vestalis, Butler, Ann. & Mag. Nat. Hist. ser. 4, vol. xvi. p. 419. n. 132 (1875).

Sabaki Valley.

EXPLANATION OF THE PLATES.

Plate XXXVI.

Fig. 1. *Neoecænyra duplex*, ♀, p. 560.
2. —— *gregorii*, p. 560.
3. *Castalius gregorii*?, p. 568.
4. *Spindasis nyassæ*, p. 569.
5, 6. *Teracolus puniceus*, p. 573.
7. —— *foliaceus*, p. 573.
8, 9. —— *pyrrhopterus*, p. 575.

Plate XXXVII.

Fig. 1, 2. *Belenois infida*, p. 578.
3. —— *zochalia*, var., p. 579.
4. *Herpænia iterata*, p. 580.
5. *Ghoria nigricostata*, p. 583.
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7. *Eublemma reducta*, p. 588.
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9. *Ortholitha monostieta*, p. 592.
10. *Cataclysme argyridia*, p. 592.

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June 19, 1894 (*continued*).